WHAT IS CLAIMED IS:

1. A method for receiving a digital television signal comprising the steps of:

intercepting a digital television signal with a plurality of antennas having different directionality to produce a corresponding plurality of input signals;

combining the input signals to reduce multi-path echoes;

subjecting the input signals to VSB processing to produce a single VSB processed signal;

decoding the VSB processed signal to form a display drive signal.

2. The method of claim 1, in which the combining step weights the input signals to produce a combined signal.

3. The method of claim 2, in which the weights of all the input signals but one are zero.

4. The method of claim 2, in which the weights of all the input signals are non-zero.

5. The method of claim 2, in which the weights of all the input signals are different.

6. The method of claim 1, in which the intercepting step uses a plurality of fixed beam antennas having different directionality.

7. The method of claim 1, in which the intercepting step uses a plurality of swept beam antennas having the same directionality.

8. The method of claim 1, in which the step of combining the input signals takes place before the step of subjecting the input signals to VSB processing.

9. The method of claim 1, in which the step of combining the input signals takes place after the step of subjecting the input signals to VSB processing.

10. The method of claim 1, additionally comprising the step of forward error correcting the VSB signal before decoding the VSB signal.

11. The method of claim 1, in which the intercepting step intercepts a terrestrial signal.

12. A receiver for intercepting a modulated radio signal, the receiver comprising:

a plurality of antennas having different directionality to produce a corresponding plurality of input signals;

means for evaluating the quality of the plurality of input signals;

a signal processor for demodulating a signal applied to its input; and

means responsive to the evaluating means for connecting one of the antennas to the input of the signal processor based on the quality of the input signals .

13. The receiver of claim 12, in which the connecting means comprises a switch.

14. The receiver of claim 13, in which the radio signal comprises a digital television signal and the signal processor comprises a VSB processor.

15. The receiver of claim 14, in which the radio signal comprises a digital television signal with QAM modulation and the signal processor comprises a VSB processor with forward error correction.

16. A receiver for intercepting a modulated radio signal, the receiver comprising:

a plurality of antennas having different directionality to produce a corresponding plurality of input signals;

means for evaluating the quality of the plurality of input signals;

a plurality of signal processors connected to the respective antennas for demodulating the respective plurality of input signals;

a utilization circuit; and

means responsive to the evaluating means for connecting one of the signal processors to the utilization circuit based on the quality of the input signals.

17. The receiver of claim 16, in which the connecting means comprises a switch.

18. The receiver of claim 17, in which the utilization circuit comprises a VSB receiver and forward error correction means.

19. The receiver of claim 18, in which the radio signal comprises a digital television

signal with QAM modulation and the utilization circuit comprises a VSB processor with forward error correction.

20. The receiver of 19 , in which the utilization circuit additionally comprises an MPEG decoder.

21. The receiver of claim of 20, in which the signal processors each have a tuner and the receiver has means for setting the tuners to the same channel in a diversity or scanned array mode .

22. The receiver of claim 21 in which the receiver also has means for setting the tuners to different channels in a two signal mode and means responsive to the evaluating means in the two signal mode for connecting both of the signal processors to one or the other or both of the antennas in the two channel mode.

23. A receiver for intercepting a modulated radio signal, the receiver comprising:

a plurality of antennas having different directionality to produce a corresponding plurality of input signals;

means for evaluating the quality of one or more criteria of the input signals;

a plurality of signal processors connected to the respective antennas for demodulating the respective plurality of input signals;

a utilization circuit; and

means responsive to the evaluating means for connecting one of the signal processors to the utilization circuit based on the quality of the input signals.

24. The receiver of claim 23, in which the one or more criteria comprise one or more of the SNR, SER, SMS, FEC, FFE, and DFE.

25. The receiver of claim 23, in which the one or more criteria comprise SNR and one or more of the, SER, SMS, FEC, FFE, and DFE.

26. The method of claim 1, in which the combining step evaluates the quality of the input signals and the subjecting step produces the single VSB signal based on the evaluation.

27. The method of claim 26, in which the digital television signal is arranged as video lines and the video lines are arranged as video frames such that combining step evaluates the quality of the input signals on a line by line or frame by frame basis.

28. A method for receiving a television signal arranged as video lines and the video lines are arranged as video frames, the method comprising the steps of:

intercepting a digital television signal with a plurality of antennas having different directionality to produce a corresponding plurality of input signals;

evaluating the quality of the input signals on a line by line or frame by frame basis;

combining the evaluated input signals to produce a single VSB processed signal that reduces the effects of multi-path echoes;

decoding the VSB processed signal to form a display drive signal.

29. The method of claim 28, in which the television signal is a digital television signal.

30. A receiver for intercepting a modulated radio signal having a defined format, the receiver comprising:

a plurality of antennas having different directionality to produce a corresponding plurality of input signals;

means for evaluating the quality of the plurality of input signals on a line by line or frame by frame basis;

a signal processor for demodulating a signal applied to its input; and

means responsive to the evaluating means for connecting one of the antennas to the input of the signal processor based on the quality of the input signals.